IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Wainwright et al.

Examiner: Drew E. Becker

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For: AMYLOPECTIN POTATO FLAKES OR GRANULES AND THEIR USE IN SNACK FOODS

Dated: November 18, 2005

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

I hereby certify this correspondence is being deposited with the United States Postal Service as first class mail, postpaid in an envelope, addressed to: Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450 on November 18, 2005

Signature: Susan M Sipes

DECLARATION UNDER 37 CFR 1.132

I, Pieter L. Buwalda, state the following:

1. I am a Food Starch Specialist at the Food Competence Center of the international co-operative AVEBE in Foxhol, The Netherlands, the world's largest manufacturers of potato starch derivatives. I took up this position on December 1 of 2001.

2. Before that I was associated with the Chemistry Department of AVEBE for a period of almost twelve years where I performed research on various starch applications, the last five years mainly food oriented. My specialisation is Chemistry of Starch.

3. I hold a PhD degree in Organic Chemistry from the University of Groningen, the Netherlands, and have written a number of publications and am a co-inventor of various patents relating to Starch Chemistry. In 1997, for instance, I acted as an author on Granular and Molecular Structure of Starch, The 3rd CAFST International Symposium, page 109.

4. A list of my publications is attached to this declaration.

5. One of the discoveries of the above-identified invention is that snack foods made of potato flakes and/or granules with high amylopectin starch content have unexpectedly increased expansion *vis-à-vis* snack foods made of natural potato starch. The examples of the present application clearly demonstrate such increased expansion.

6. De Vries is a general overview of potential applications of isolated amylopectin potato starch. De Vries article compares the characteristics of amylopectin potato starch and natural potato starch.

7. At page 9, lines 10-15, de Vries states:

> In extruded potato snacks, the use of amylopectine potato starch leads to less expansion after frying. This can lead to better control of the expansion process.

In conformity with the theme of the article, the statement "the use of amylopectine potato starch leads to *less expansion* after frying" is a statement regarding a comparison between a product made of amylopectin potato starch and a product made of natural potato starch. In particular, De Vries teaches that use of amylopectin starch in a snack product yields a *less expanded* product as compared with the use of natural potato starch.

8. It does not make sense to interpret the statements of de Vries as a comparison of the degree of expansion of a product made of amylopectin starch (i) pre-frying versus (ii) post-frying. Any type of starch is more expanded post-frying versus pre-frying. Thus, such an interpretation would lead to a meaningless statement.

9. The combination of Martines-Serna Villagran *et al.* (U.S. Patent No. 6,544,580) and de Vries does not teach the invention. Martines-Serna Villagran *et al.* teach a snack product comprising potato flakes which does *not* have high amylopectin starch. De Vries teaches not to

use amylopectin potato if one wants to produce a more expanded potato snack product. Thus, de Vries in combination with Martines-Serna Villagran *et al.* do *not* teach nor suggest the invention.

10. Tallberg *et al.* (U.S. Patent No. 5,824,798) do *not* mention increased expansion of products made from amylopectin potato starch. And, in view of the teaching of de Vries, a skilled artisan would have been taught **not** to use amylopectin potato if he wanted to produce a more expanded potato snack product.

11. Ståhl (U.S. Patent No. 5,759,597) does *not* mention increased expansion of products made from amylopectin potato starch. And, in view of the teaching of de Vries, a skilled artisan would have been taught **not** to use amylopectin potato if he wanted to produce a more expanded potato snack product.

12. Jeffcoat *et al.* (U.S. Patent No. 6,541,060) do *not* mention increased expansion of products made from amylopectin potato starch. And, in view of the teaching of de Vries, a skilled artisan would have been taught **not** to use amylopectin potato if he wanted to produce a more expanded potato snack product.

13. I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true. Further that these statements were made with the knowledge that willfully false statements, and the like, so made are punishable by fine or imprisonment or both under Section 1001 of Title 18 of the United States Code, and that such willfully false statements may jeopardize the validity of the application of any patent issued thereon.

Pieter L. Buwalda

List of Publications

1. Buwalda, Pieter Lykle; Meima, Heine Roelf; Woltjes, Jakob Roelf. **Degraded starch for reversible food gel formation.** Eur. Pat. Appl. (2001), 9 pp. CODEN: EPXXDW EP 1145646 A1 20011017 CAN 135:272227 AN 2001:759568 CAPLUS

2. Buwalda, Pieter Lykle; Bleeker, Ido Pieter; Woltjes, Jakob Roelf; Semeijn, Cindy. **Foodstuff containing discrete starch particles.** PCT Int. Appl. (2000), 47 pp. CODEN: PIXXD2 WO 2000054607 A1 20000921 CAN 133:221881 AN 2000:666555 CAPLUS

3. Siepel, Ugo; Buwalda, Pieter Lykle. **Ingredients for expanded foods.** PCT Int. Appl. (2000), 21 pp. CODEN: PIXXD2 WO 2000054606 A1 20000921 CAN 133:221880 AN 2000:666554 CAPLUS

4. Woltjes, Jakob Roelf; Meima, Heine Roelf; Buwalda, Pieter Lykle. **Composition based on cross-linked starch and depolymerized starch suitable as gelatin replacement.** PCT Int. Appl. (2000), 28 pp. CODEN: PIXXD2 WO 2000044241 A1 20000803 CAN 133:104201 AN 2000:534945 CAPLUS

5. Buwalda, Pieter Lykle; Kesselmans, Ronald Pieter Wilhelmus; Maas, Augustinus Arnoldus Maria; Simonides, Hylke Hotze. **Hydrophobic starch derivatives, their manufacture and uses.** PCT Int. Appl. (2000), 31 pp. CODEN: PIXXD2 WO 2000042076 A1 20000720 CAN 133:121916 AN 2000:493578 CAPLUS

6. Thurkow, Roelfina Willemina Antonia; Buwalda, Pieter Lykle. **Heat-stable high-amylopectin starch for use in baking.** PCT Int. Appl. (2000), 23 pp. CODEN: PIXXD2 WO 2000005973 A1 20000210 CAN 132:136689 AN 2000:98230

7. Buwalda, Pieter Lykle; Guns, Jacobus; Lacroix, Jacques. **Depilatory paint thickener based on starch for hides.** PCT Int. Appl. (2000), 60 pp. CODEN: PIXXD2 WO 2000005420 A1 20000203 CAN 132:124472 AN 2000:85057 CAPLUS

8. Buwalda, Pieter Lykle; Meima, Heine Rolf; Brine, Charles James. **Salt-stable modified starch.** PCT Int. Appl. (2000), 37 pp. CODEN: PIXXD2 WO 2000001251 A1 20000113 CAN 132:77840 AN 2000:34702 CAPLUS

9. van der Huizen, Adri A.; Buwalda, Pieter L.; Wilting, Theo; Pol, Harm; Jekel, Andries P.; Meetsma, Auke; van de Grampel, Johan C. **Preparation of urethane and urea derivatives of (NPCl2)3. Crystal structure of a spirocyclic phosphazene with a phosphacyanuric loop.** Journal of the Chemical Society, Dalton Transactions: Inorganic Chemistry (1972-1999) (1994), (4), 577-81. CODEN: JCDTBI ISSN:0300-9246. CAN 121:9686 AN 1994:409686

10. Van de Grampel, J. C.; Alberda van Ekenstein, G. O. R.; Baas, J.; Buwalda, P. L.; Jekel, A. P.; Oosting, G. E. **Preparation and polymerization of styrene-, acrylate-, and methacrylate-substituted cyclophosphazenes.** Phosphorus, Sulfur and Silicon and the Related Elements (1992), 64(1-4), 91-8. CODEN: PSSLEC ISSN:1042-6507. CAN 116:256116 AN 1992:256116 CAPLUS

11. Buwalda, Pieter L.; Steenbergen, Andre; Oosting, Gerard E.; Van de Grampel, Johan C. **The addition of phosphazenocuprates to aldehydes and ketones: a new route to gem-organo-substituted cyclotriphosphazenes.** Inorganic Chemistry (1990), 29(14), 2658-63. CODEN: INOCAJ ISSN:0020-1669. CAN 113:78690 AN 1990:478690 CAPLUS